In Australia, the wheat belt is not only part of the sheep belt but also the hay belt. Although oats are grown for fodder in the cooler portions of the coastal fringe and on the plateau, the largest portion of the hay crop comes from the drier wheat belt across the mountains. In Australia there is nothing comparable with the cool, moist hay-dairy belt of the American Lake States or New England. Natural pasture sparsely supplemented by ensilage is the basis of the Australian coastal dairying industry.

THE N.S.W. FARM MECHANISATION SCHEME.
ITS HISTORY AND FUTURE POSSIBILITIES.

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The New South Wales Government's Farm Mechanisation Scheme or, as it was originally called, the Food Production Scheme, was officially openel at Nowra an June 15th, 1943, and since that date it has expanded rapidly so that now there are over 70 societies throughout the State operating mechanised units.

Despite this expansion, however, and notwithstanding the undoubted success with which the Scheme has achieved its original objective of increased fodder production and conservation, it is doubtful whether it will become, as was originally hoped, a permanent feature of the State's agriculture. In any case it appears that some changes are desirable if the Scheme is to function successfully in the future, and reference will be made to these in the following pages.

With the end of the war, the attitude of many persons responsible for the management of societies operating the Scheme has shown a significant change; much of their enthusiasm has waned, and already several dairy societies have withdrawn or notified their intention of withdrawing from the Scheme in the near future—it is expected others will follow.

Because it is considered that co-operative mechanisation on lines similar to, but not identical with, those of the present Scheme can be of great benefit to Australian agriculture and the dairying industry in particular, it is important that the present Scheme be reviewed and its weaknesses be examined before it fails altogether, so that out of it can be built a new and more satisfactory scheme which will not require the stimulus of a war emergency to make it function and which will reduce the possibility of heavy financial losses on the part of the Government to a minimum.

With this end in view, the history of the present Scheme will be outlined in the following pages, the difficulties which have confronted it will be examined and, finally, some suggestions will be offered as to how it can best be adapted to meet the future needs of farm mechanisation in this State.

Origins of the Scheme.

Plans to establish mechanised farming on a co-operative basis were first mooted early in 1943. At that time the Commonwealth Government was conducting a campaign for the increased production of practically all foodstuffs, particularly milk and milk products. At the same time all primary industries were facing an acute labour shortage and mechanised equipment of all kinds was in short supply.

To assist dairy farmers to overcome the manpower shortage and to make the best use of what new machinery of the more expensive types was available, the State Government announced in May, 1943, what was then called the Food Production Scheme. The short term objective was to expand the production of milk through the increased cultivation and conservation of fodder crops, this to be made possible by the co-operative use of farm machinery. Even when the Scheme was first envisaged it was recognised that it should be more than merely a wartime measure to increase production. It was hoped at the outset that the Scheme would make it permanently possible for the small dairy farmer to improve his efficiency in the production of fodder crops by being able to make use of expensive machinery which it would not be economical for him to purchase himself. The long range objective, therefore, was to give the small landholder the opportunity and encouragement to utilise the services of the more expensive types of farming machinery without the necessity of heavy individual capital outlay.

The Government appropriated £100,000 in the first instance for this purpose and loans were made available through the Rural Bank, at first to co-operative dairy companies and later to co-operative societies formed specially for the purpose so that they could form machinery pools to operate certain types of farm equipment. These loans, which were not to exceed £2,000 (later £3,000) in the case of each society, were free of interest and were made under very liberal conditions.

Co-operative societies were required to manage the pool in conjunction with the District War Agricultural Committees. This included the fixation of charges which were to have regard to the rates being charged by private contractors in the district. In practice the District War Agricultural Committees have had very little influence in the management of pools, particularly where the pool was operated by a co-operative dairy society. Indeed, there has been some criticism by factory managements of this clause, as in practice it has proved difficult and unnecessary.

The original £100,000 made available by the Government for advances to co-operative societies was exceeded in less than a year and further allocations of funds have since been necessary; the undermentioned figures indicate the rapidity with which the farming community took advantage of the Scheme.

	Funds Advanced £	No. of Societies Operating.
31st December, 1943 ..	82,450	18
30th June, 1944	106,063	35
31st December, 1944 ..	140,303	54
30th June, 1945	167,283	62
31st December, 1945 ..	193,036	72

The Scheme applied originally to dairying districts only but, after some opposition in the early stages, particularly on the South Coast, where the traditional conservatism of the farming community caused them to be wary of a scheme which some of them thought was "communistic" in character, it spread rapidly throughout the coastal dairying belt, and it was decided to extend it to tableland and inland districts.

The Scheme has proved successful in tableland districts but it has not spread to inland districts except in one or two isolated cases, and it is understood that while approval has been given to extend to these districts such an extension has not been encouraged.

Practical Work Achieved.

In the early stages work carried out consisted mainly of ploughing and discing, and, in some cases, rotary hoeing; however, as the Scheme developed many societies added to their equipment so that a wider range of operations could be undertaken and some societies are now able to perform, in addition to ploughing and discing, such diverse operations as spraying, dusting, cabbage planting, potato digging, harvesting, hay baling and chaff cutting.

Unfortunaetly, statistics showing the work done are not quite complete and are not yet available after December, 1944. However, available statistics to that date show that from the inception of the Scheme societies had worked nearly 50,000 acres and in addition cut over 550 tons of chaff, pressed 820 tons of hay, threshed over 6,000 bags of maize and planted 270,000 cabbages. These figures, despite their incompleteness, indicate the magnitude of the work carried out. Furthermore, it has been estimated by persons closely connected with the administration of the Scheme that about 50 per cent. of the land worked was virgin land and would not otherwise have been broken up, while much of the other work done would not have been carried out if the Scheme had not been operating.

Farm Mechanisation Section—Department of Agriculture.

As the Scheme expanded it was thought desirable to set up a Farm Mechanisation Section in the Division of Plant Industry, Department of Agriculture. An experienced field officer was appointed as Executive Officer in October, 1944, and up to the

present one mechanic has been added to the staff for the purpose of inspecting equipment, reporting on its condition and maintenance and advising societies as to the best methods of operation.

The Scheme's Chief Weakness.

It has already been pointed out that, in spite of the manner in which the Scheme has expanded and the amount of practical farm work which it has achieved, it would be a mistake to assume that it has been an unqualified success.

However, in criticising the Scheme it must be remembered that it was introduced at one of the most critical periods in Australian history, the main objective being to increase, or rather to stem the decline in agricultural production which was taking place at that time, and that it helped to do this cannot be denied.

To ensure that the Scheme would be speedily adopted throughout the State it was necessary to offer dairying societies loans on very attractive terms, and, while no official figures are available, there is good reason to believe that the Scheme is involving the State in some financial loss.

The evidence for stating that the Scheme under present arrangements is running at a financial loss is:—

(i) A detailed examination of operating costs at several pools now being carried out by the Division of Marketing and Agricultural Economics indicates that at several of the pools where figures have been examined costs exceed charges by a considerable margin.

(ii) The examination of the published balance-sheets of several pools reveals that, at least in the early stages of their operations, they either incurred a net loss or they would have done so had a reasonable allowance been made for depreciation and a repairs reserve.

(iii) The terms under which loans were granted were liberal, having in mind the national need, and consequently there was no great emphasis on efficiency in the management of the pools. It is not incumbent on societies to reduce their operating costs, and, except in the case of later formed pools, there is no obligation to increase charges where running costs warrant this.

It is considered that the societies examined are typical of many other societies and as the figures of several of those examined showed them to be operating at a loss it is likely that many other societies throughout the State have also incurred losses.

That losses have probably been sustained in the past is not a cause for concern. If societies had had to assume full financial responsibility from the commencement the Scheme would probably never have functioned, but it is contended that a longe-range scheme can only operate satisfactorily on a basis which is self-supporting.

Difficulties Confronting Operating Societies.

During the past two and a half years societies operating the Scheme have met with numerous difficulties. Some of these have been partially overcome, some remain. If a Scheme similar to the present one is to operate in the future further efforts must be made to overcome these difficulties, because they are problems which will confront any scheme for the co-operative use of agricultural machinery. It is appropriate here to consider the chief of these difficulties.

Charges.—Many societies experienced difficulty in fixing their charges due to lack of information as to costs. The position has often been complicated by the fact that societies in adjoining districts were working at rates which were obviously below the cost of operations.

It is not suggested that charges should be uniform throughout the State nor that societies should be instructed as to what they should charge. It is suggested, however, that, in fixing charges, societies should examine all available figures as to costs and that under no circumstances should charges be fixed at below the expected operating cost. In the past it may have been reasonable, and in fact beneficial to the country that farmers should have been encouraged to use pool equipment by offering it at prices below the cost of operating but this time has passed and if the Scheme is to be judged a success in the future it should be self-supporting.

Operators.—Considerable difficulty has been experienced in many cases in obtaining satisfactory operators. This difficulty could be largely overcome by a scheme for training operators. The desirability of such a scheme has, perhaps, diminished to some extent with the "self-training" of operators but even now some such scheme which aims to train operators in farming operations and also in the mechanical aspects of the equipment would be of considerable value.

This would not solve the second problem associated with operators; this is that the work is very monotonous and, over a period, trying, with the result that most operators after about a year's service want a change of occupation. In some districts the fact that operators must live away from home and and often sleep in the open also makes it very difficult to obtain men. This difficulty may be overcome to a large extent as the employment situation becomes easier.

Loss of Time due to Weather Conditions.—During the past two and a half years weather conditions throughout the dairying districts have been particularly unfavourable and, in many instances, it has been impossible to work tractors or hoes for weeks on end because of the dry hard condition of the land. Since, except in one or two exceptional cases, society managements have made no arrangements for the alternative employment of operators when it has been impossible to use pool machinery, costs have been increased considerably. Most operators are paid by the week whether they are able to work or not and more attention to their alternative employment during these periods should result in an appreciable reduction in costs.

Seasonal Nature of the Demand for Work.—Another difficulty which confronts the management of pools is the seasonal nature of the demand for tractor work. This demand cannot be met at certain periods unless a tractor reserve, with its consequent difficulties and added expense, is provided and this causes some dissatisfaction amongst the society members and has been one of the most common arguments used against the co-operative use of machinery.

It is a difficulty which probably can never be entirely overcome, but it can be minimised firstly by an educational programme, which aims at persuading farmers to prepare their land early and not within a day or two of sowing and, secondly, by increasing the scope of the services provided to include spraying, dusting, harvesting and chaff cutting, etc., thereby extending the period of heavy demand for pool machinery.

The Position of Private Enterprise.

There are throughout the State numerous private contractors carrying out work of a nature similar to that done by machinery pools, in particular rotary hoe operators. The existence of these contractors was recognised when the Mechanisation Scheme was inaugurated but it was considered that the services provided by such contractors were not meeting the demand for such work. In some districts, pools were not formed because it was considered private contractors were giving an adequate service. In most cases, however, pool equipment has had to compete with tractors and hoes operated by private contractors, and, indeed, the agreement with the bank provides that rates being charged by contractors in the district must be taken into consideration when pool charges are fixed. This has been the cause of some difficulty because it has been found that private operators often work at rates below pool operating costs.

The discrepancy between rates charged by private contractors and the pools is not always as great as appears at first sight. Most private contractors are able to choose their land and will not go on to land which they regard as too hard or stony, or otherwise difficult to work. The result frequently is that the pools, which cannot refuse work unless it is quite impossible to perform it, have to tackle the harder, more difficult land, while private contractors operate solely on land which is easy to work and consequently less costly.

In spite of this it is often possible for private contractors to work at lower rates than pools. The chief reasons for this are:—

(a) Private contractors are often small farmers, and even if they are not farmers, they rarely operate more than one unit. This is important, because under these circumstances there is no question of paying award wages or overtime, and it is frequently reported that, in some seasons, private contractors work very long hours. In addition to this the private contractor can often find profitable employment on his own farm when there is no contract work offering. This is in contrast to pool operators who have to be paid heavy overtime rates when they work over 48

hours per week, and for whom it is difficult to find alternative avenues of profitable employment when there is no tractor work available.

(b) The fact that most private contractors are "owner-operators" also means that, in most cases, they take greater care of their equipment, and in fact, usually have a better mechanical knowledge than pool employees. Consequently the private contractor's repairs' cost is usually lower.

(c) Another factor which must be taken into account is that the financial failure of private contractors or their disappearance when their equipment is no longer serviceable is not an uncommon occurrence. This is often due to the fact that prices charged are too low, sufficient to cover out of pocket expenses but not to renew machinery when its working life ends. In other words through lack of knowledge of real costs, or for other reasons, many private contractors often charge rates which do not cover their costs until, eventually, they are forced out of business.

(d) Finally, and perhaps of most importance, is the factor which has already been mentioned, viz., that pools must accept all work offered while private contractors, at least when there is plenty of work offering, can select their jobs.

It should be noted that the first two reasons apply only to the one-man operator, while the last two apply to all private contractors. As has already been pointed out, most private contractors are "one-man owner operators."

Pools, it should be noted, have one advantage over private contractors; it is that all their capital is interest free.

If private contractors had shown in the past that they were able to meet the demand for mechanised farming and provide all the services now provided by State Machinery Pools, there would be justification for doubting whether funds should continue to be made available free of interest to finance machinery pools. But this has not been the case; this venue of employment has never attracted private capital on a large scale, and very few private contractors have ever expanded beyond their one original tractor or hoe.

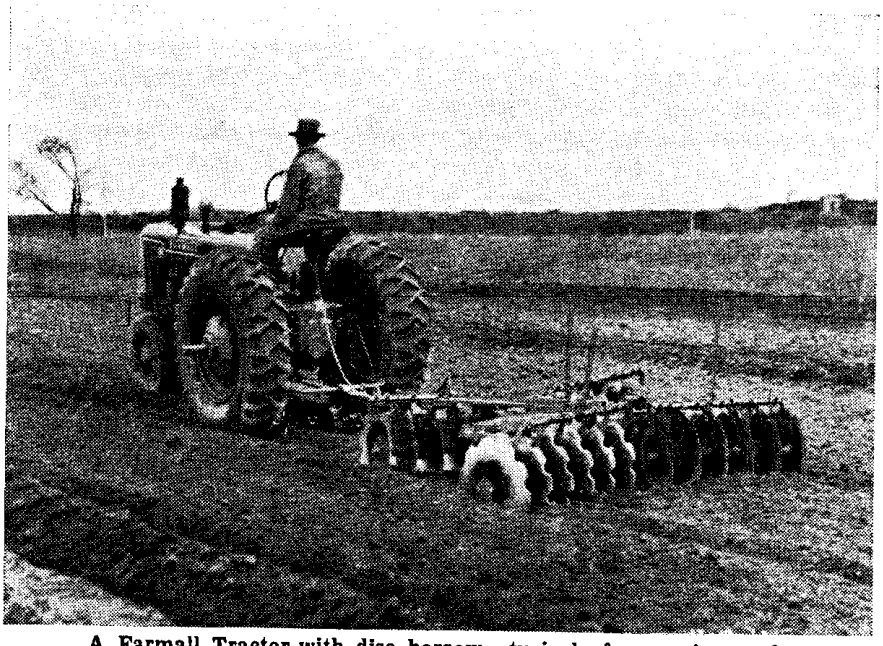
The encouragement which the Farm Mechanisation Scheme has given to mechanised farming on smaller farms may encourage more private contractors to enter the field, but, at least for some time, it would appear desirable for some scheme to operate which would supplement any such services, so that small farmers may be provided with the benefit of modern mechanised methods without over-capitalising their farms.

What of the Future?

The Farm Mechanisation Scheme has demonstrated during the past two and a half years that mechanised farming on co-operative lines can be of great benefit to the small dairy farmer, the vegetable grower and the orchardist. The Scheme has succeeded, after some initial scepticism on the part of the farming community, in popularising mechanised farming amongst coastal dairy farmers, but, if it is to become permanent, it must now be placed on a sound financial basis. It has already been suggested that this can

be done simply by making the borrowing societies fully responsible for the loans made to them, the State's funds to be protected by guarantees on the part of the societies' directors where other assets are insufficient security. Such a step as this would not only protect the State from loss but would encourage greater efficiency in the management of pools and no doubt reduce operating costs in many cases.

Would existing societies be prepared to carry on the Scheme under the arrangements proposed? No doubt some societies would not accept the responsibility, but, provided any losses incurred to date were wiped off and societies retained complete control of the administration of their pools (this provision cannot be over-emphasised), it is considered that most of them, realising the value of the service to their suppliers and members, would be glad to carry on the Scheme.



A Farmall Tractor with disc harrow—typical of many in use by State Machinery Pools.

In this regard it is worth noting the present attitude of factory managements and others to the Scheme. Most dairy societies operating the Scheme realised the important contribution which it could make to fodder production, and consequently dairy production, during the critical war years, and it was for this reason that they adopted it. During the war most of them were prepared to carry out the necessaray administrative work without any additional remuneration, largely from patriotic motives, but, now that the war is over, they do not feel inclined to continue to do this. There is a considerable amount of administrative work involved, and officers responsible for pool administration justly feel that they should receive a reasonable payment for this work. That such remuneration should be provided is an essential condition of the Scheme's continuance in the future.